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RAW SEQUENCE LISTING   DATE: 11/10/2003
PATENT APPLICATION: **US/09/424,686F**   TIME: 11:29:39

Input Set : **A:\pto.ln.txt**
Output Set: **N:\CRF4\11102003\I424686F.raw**

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 4 <110> APPLICANT: Hagen, Gustav
 5         Siegmund, Hans-Ulrich
 6         Weichel, Walter
 7         Wick, Maresa
 8         Zubov, Dmitry
10 <120> TITLE OF INVENTION: Human Catalytic Telomerase Sub-Unit and its Diagnostic and
rapeutic
11         Use
13 <130> FILE REFERENCE: Bayer 10,203
15 <140> CURRENT APPLICATION NUMBER: US 09/424,686F
17 <141> CURRENT FILING DATE: 1999-11-29
19 <150> PRIOR APPLICATION NUMBER: PCT/EP98/03468
21 <151> PRIOR FILING DATE: 1998-06-09
23 <160> NUMBER OF SEQ ID NOS: 32
25 <170> SOFTWARE: Microsoft Word
27 <210> SEQ ID NO: 1
28 <211> LENGTH: 4042
29 <212> TYPE: DNA
30 <213> ORGANISM: Homo sapiens
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172 <211> LENGTH: 1132
173 <212> TYPE: PRT
174 <213> ORGANISM: Homo sapiens
176 <400> SEQUENCE: 2
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181                 20                  25                  30
·183   Pro Gln Gly Trp Arg Leu Val Gln Arg Gly Asp Pro Ala Ala Phe Arg
184             35                  40                  45
186    Ala Leu Val Ala Gln Cys Leu Val Cys Val Pro Trp Asp Ala Arg Pro
187         50                  55                  60
189    Pro Pro Ala Ala Pro Ser Phe Arg Gln Val Ser Cys Leu Lys Glu Leu
190    65                  70                  75                  80
192    Val Ala Arg Val Leu Gln Arg Leu Cys Glu Arg Gly Ala Lys Asn Val
193                 85                  90                  95
195    Leu Ala Phe Gly Phe Ala Leu Leu Asp Gly Ala Arg Gly Gly Pro Pro
196                 100                 105                 110
198    Glu Ala Phe Thr Thr Ser Val Arg Ser Tyr Leu Pro Asn Thr Val Thr
199             115                 120                 125
201    Asp Ala Leu Arg Gly Ser Gly Ala Trp Gly Leu Leu Leu Arg Arg Val
202             130                 135                 140
204    Gly Asp Asp Val Leu Val His Leu Leu Ala Arg Cys Ala Leu Phe Val
205    145                 150                 155                 .160
207    Leu. Val Ala Pro Ser Cys Ala Tyr Gln Val Cys Gly Pro Pro Leu Tyr
208                 165                 170                 175
210    Gln Leu Gly Ala Ala Thr Gln Ala Arg Pro Pro Pro His Ala Ser Gly
211                 180 ·               185                 190
213    Pro Arg Arg Arg Leu Gly Cys Glu Arg Ala Trp Asn His Ser Val Arg
214             195                 200                 205
216    Glu Ala Gly Val Pro Leu Gly Leu Pro Ala Pro Gly Ala Arg Arg Arg
217         210                 215                 220
219    Gly Gly Ser Ala Ser Arg Ser Leu Pro Leu Pro Lys Arg Pro Arg Arg
220    225                 230                 235                 240
222    Gly Ala Ala Pro Glu Pro Glu Arg Thr Pro Val Gly Gln Gly Ser Trp
223             245                 ·   250                 255
225    Ala His Pro Gly Arg Thr Arg Gly Pro Ser Asp Arg Gly Phe Cys Val
226             260                 265                 270
228    Val Ser Pro Ala Arg Pro Ala Glu Glu Ala Thr Ser Leu Glu Gly Ala
229             275                 280                 285
231    Leu Ser Gly Thr Arg His Ser His Pro Ser Val Gly Arg Gln His His
232    .       290                 295                 300
234    Ala Gly Pro Pro Ser Thr Ser Arg Pro Pro Arg Pro Trp Asp Thr Pro
235    305 ·               310                 315                 320
237    Cys Pro Pro Val Tyr Ala Glu Thr Lys His Phe Leu Tyr Ser Ser Gly
238                 325                 330                 335
240    Asp Lys Glu Gln Leu Arg Pro Ser Phe Leu Leu Ser Ser Leu Arg·Pro
241             340                 345                 350
243    Ser Leu Thr Gly Ala Arg Arg Leu Val Glu Thr Ile Phe Leu Gly Ser
244    .       355         .       360                 365
246    Arg Pro Trp Met Pro Gly Thr Pro Arg Arg Leu Pro Arg Leu Pro Gln
247         370                 375                 380
249    Arg Tyr Trp Gln Met Arg Pro Leu Phe Leu Glu Leu Leu Gly Asn His
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253                     405                     410                     415
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256                     420                     425                     430
258     Gly Ser Val Ala Ala Pro Glu Glu Glu Asp Thr Asp Pro Arg Arg Leu
259                     435                     440                     445
261     Val Gln Leu Leu Arg Gln His Ser Ser Pro Trp Gln Val Tyr Gly Phe
262                     450                     455                     460
264     Val Arg Ala Cys Leu Arg Arg Leu Val Pro Pro Gly Leu Trp Gly Ser
265     465                     470                     475                     480
267     Arg His Asn Glu Arg Arg Phe Leu Arg Asn Thr Lys Lys Phe Ile Ser
268                     485                     490                     495
270     Leu Gly Lys His Ala Lys Leu Ser Leu Gln Glu Leu Thr Trp Lys Met
271                     500                     505                     510
273     Ser Val Arg Asp Cys Ala Trp Leu Arg Arg Ser Pro Gly Val Gly Cys
274                     515                     520                     525
276     Val Pro Ala Ala Glu His Arg Leu Arg Glu Glu Ile Leu Ala Lys Phe
277                     530                     535                     540
279     Leu His Trp Leu Met Ser Val Tyr Val Val Glu Leu Leu Arg Ser Phe
280     545                     550                     555                     560
282     Phe Tyr Val Thr Glu Thr Thr Phe Gln Lys Asn Arg Leu Phe Phe Tyr
283                     565                     570                     575
285     Arg Lys Ser Val Trp Ser Lys Leu Gln Ser Ile Gly Ile Arg Gln His
286                     580                     585                     590
288     Leu Lys Arg Val Gln Leu Arg Glu Leu Ser Glu Ala Glu Val Arg Gln
289                     595                     600                     605
291     His Arg Glu Ala Arg Pro Ala Leu Leu Thr Ser Arg Leu Arg Phe Ile
292                     610                     615                     620
294     Pro Lys Pro Asp Gly Leu Arg Pro Ile Val Asn Met Asp Tyr Val Val
295     625                     630                     635                     640
297     Gly Ala Arg Thr Phe Arg Arg Glu Lys Arg Ala Glu Arg Leu Thr Ser
298                     645                     650                     655
300     Arg Val Lys Ala Leu Phe Ser Val Leu Asn Tyr Glu Arg Ala Arg Arg
301                     660                     665                     670
303     Pro Gly Leu Leu Gly Ala Ser Val Leu Gly Leu Asp Asp Ile His Arg
304                     675                     680                     685
306     Ala Trp Arg Thr Phe Val Leu Arg Val Arg Ala Gln Asp Pro Pro Pro
307     690                     695                     700
309     Glu Leu Tyr Phe Val Lys Val Asp Val Thr Gly Ala Tyr Asp Thr Ile
310     705                     710                     715                     720
312     Pro Gln Asp Arg Leu Thr Glu Val Ile Ala Ser Ile Ile Lys Pro Gln
313                     725                     730                     735
315     Asn Thr Tyr Cys Val Arg Arg Tyr Ala Val Val Gln Lys Ala Ala His
316                     740                     745                     750
318     Gly His Val Arg Lys Ala Phe Lys Ser His Val Ser Thr Leu Thr Asp
319                     755                     760                     765
321     Leu Gln Pro Tyr Met Arg Gln Phe Val Ala His Leu Gln Glu Thr Ser
322                     770                     775                     780
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328                 805                 810                     815
330     Ala Val Arg Ile Arg Gly Lys Ser Tyr Val Gln Cys Gln Gly Ile Pro
331                 820                 825                     830
333     Gln Gly Ser Ile Leu Ser Thr Leu Leu Cys Ser Leu Cys Tyr Gly Asp
334                 835                 840                     845
336     Met Glu Asn Lys Leu Phe Ala Gly Ile Arg Arg Asp Gly Leu Leu Leu
337             850                 855                 860
339     Arg Leu Val Asp Asp Phe Leu Leu Val Thr Pro His Leu Thr His Ala
340     865                 870                 875                     880
342     Lys Thr Phe Leu Arg Thr Leu Val Arg Gly Val Pro Glu Tyr Gly Cys
343                 885                 890                     895
345     Val Val Asn Leu Arg Lys Thr Val Val Asn Phe Pro Val Glu Asp Glu
346                 900                 905                     910
348     Ala Leu Gly Gly Thr Ala Phe Val Gln Met Pro Ala His Gly Leu Phe
349             915                 920                     925
351     Pro Trp Cys Gly Leu Leu Leu Asp Thr Arg Thr Leu Glu Val Gln Ser
352             930                 935                     940
354     Asp Tyr Ser Ser Tyr Ala Arg Thr Ser Ile Arg Ala Ser Leu Thr Phe
355     945                 950                 955                     960
357     Asn Arg Gly Phe Lys Ala Gly Arg Asn Met Arg Arg Lys Leu Phe Gly
358                 965                 970                     975
360     Val Leu Arg Leu Lys Cys His Ser Leu Phe Leu Asp Leu Gln Val Asn
361                 980                 985                     990
363     Ser Leu Gln Thr Val Cys Thr Asn Ile Tyr Lys Ile Leu Leu Leu Gln
364                 995                 1000                1005
366     Ala Tyr Arg Phe His Ala Cys Val Leu Gln Leu Pro Phe His Gln Gln
367             1010                1015                1020
369     Val Trp Lys Asn Pro Thr Phe Phe Leu Arg Val Ile Ser Asp Thr Ala
370     1025                1030                1035                1040
372     Ser Leu Cys Tyr Ser Ile Leu Lys Ala Lys Asn Ala Gly Met Ser Leu
373                 1045                1050                1055
375     Gly Ala Lys Gly Ala Ala Gly Pro Leu Pro Ser Glu Ala Val Gln Trp
376             1060                1065                1070
378     Leu Cys His Gln Ala Phe Leu Leu Lys Leu Thr Arg His Arg Val Thr
379             1075                1080                1085
381     Tyr Val Pro Leu Leu Gly Ser Leu Arg Thr Ala Gln Thr Gln Leu Ser
382         1090                1095                1100
384     Arg Lys Leu Pro Gly Thr Thr Leu Thr Ala Leu Glu Ala Ala Ala Asn
385     1105                1110                1115                1120
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388                 1125                1130
390 <210> SEQ ID NO: 3
391 <211> LENGTH: 1153
392 <212> TYPE: DNA
393 <213> ORGANISM: Homo sapiens .
395 <400> SEQUENCE: 3
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VERIFICATION SUMMARY
PATENT APPLICATION: **US/09/424,686F**

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